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			GEBREMICHAEL, BRUK A	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/540,059

Applicant(s)

MORALLEE ET AL.

Examiner

Bruk A. Gebremichael

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 06/22/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. It appears that the submitted **amended** set of claims is missing the last page. For instance claim 14 is incomplete since part of it is missing.

However, the examiner has considered the remaining set of claims (i.e. part of claim 14 and claims 15-17) from the original submitted set of claims.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

3. Claims 1-14 are objected to because of the following informalities, the phrase "characterised" in line 2 of claims 1, 6, 8, 12 and 14, and in line 1 of claims 2-5, 7, 9-11, 13 and 15-17 is believed to be in error for -- characterized --. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5, 16 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, the phrase "the repeating sound may be switched off and on" renders this claim indefinite since it is not clear whether the limitation following the phrase "may be" is part of the claimed invention.

Regarding claim 16, the claim recites the limitation " the element " in the first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 17, the phrases "like" in line 2, and the phrase "e.g." in line 3 of this claim render the claim indefinite as it is not clear whether the limitations following these phrases are part of the claimed invention See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 is rejected under 35 U.S.C. 102(b) as being unpatentable over Lally 4,554,910.

Regarding claim 6, Lally discloses the following claimed limitations, a device for placement between the hands of a person performing chest compressions and the chest of a patient or a manikin (FIG 1, label 10), characterised in comprising: a first part and a second part (FIG 2, labels 16 and 18), the parts being moveable towards each other when a compression is performed (col.3, lines 50-55), a return means between the parts for moving the parts away from each other again when the compression is relieved (col.3, lines 27-30), and a mechanical sound generator between the parts for generating a sound when the parts are moved towards each other with a force exceeding a pre-defined value (see col.2, lines 13-19 and col.3, lines 50-60), the mechanical sound generator comprising a plate suspended at one end thereof, the opposite end of the plate being free (col.2, lines 7-10), the plate being shaped to generate a sound when the force exceeding a predetermined value is exerted on the free end of the plate (col.2, lines 14-19 and col.3, lines 55-60).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 7-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lally 4,554,910 in view of Kelly 5,496,257 and further in view of Myklebust 6,306,107.

Regarding claim 1, Lally discloses the following claimed limitations, a device for placement between the hands of a person performing chest compressions and the chest of a patient or a manikin (FIG 1, label 10), characterised in comprising: a first part and a second part (see FIG 2, labels 16 and 18), the parts being moveable towards each other when a compression is performed (col.3, lines 50-55), a return means between the parts for moving the parts away from each other again when the compression is relieved (col.3, lines 27-30), a mechanical sound generator between the parts for generating a sound when the parts are moved towards each other with a force exceeding a pre-defined value (col.2, lines 13-19 and col.3, lines 50-60).

However, Lally does not disclose the following claimed limitations: an electric power source between the parts, an electronic sound generating means between the parts, and coupled to the power source, for generating a repeating sound indicating a desired compression rate, and a switch between the parts, the switch being operated by

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the movement of the parts towards each other, and the switch operably coupling the power source to the electronic sound generating means.

Kelly teaches the following claimed limitations, an electric power source between the parts (col.5, lines 39-40), an electronic sound generating means between the parts and coupled to the power source (FIG 3, labels 55 and 32) for generating a repeating sound indicating a desired compression rate (see col.6, lines 51-55 and col.9, lines 31-33) and a switch between the parts and the switch operably coupling the power source to the electronic sound generating means (FIG 3, label 22 and col.5, lines 48-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly by incorporating an audio signal driver and an audio indicator in order to emit or generate a sound tone that informs a rescuer for how long he/she should apply a compression force to the patient's chest, as taught by Kelly (see col.6, lines 51-55).

However, Lally in view of Kelly does not positively teach, the switch being operated by the movement of the parts towards each other.

Myklebust teaches, a force activated switch being operated by the movement of parts towards each other (col.2, lines 35-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by using a force activated switch in the compression unit in order to allow the applied vertical force activates the switch thereby connecting the

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power source to the audio signal driver and the audio indicator to produce the audible signal.

Regarding claim 5, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Kelly further teaches, the repeating sound may be switched off and on by pressing the first and the second parts together with a sufficient force over a specified period of time (col.10, lines 28-35).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by setting a desired pressure in the CPU of the device in order to provide a warning audible signal to the user when the actual pressure being applied is higher or lower than the desired pressure.

Regarding claim 7, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Lally further discloses, the return means being a pliable material extending between the parts (col.3, lines 27-30).

Lally in view of Kelly and further in view of Myklebust does not teach the return means being a pliable gasket extending along the perimeter of the parts.

However, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to select a known material for known purpose, since it has been held to be within the general skill of a worker in the art to select a known material

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on the basis of its suitability for the intended use as a matter of obvious design choice (see *In re Leshin*, 125 USPQ 416).

Therefore, it would have been an obvious matter of design choice to use a pliable gasket, since applicant has not disclosed that the pliable gasket solves any stated problem, or is for any particular purpose.

Regarding claim 8, Lally discloses the following claimed limitations, a device for placement between the hands of a person performing chest compressions and the chest of a patient or a manikin (FIG 1, label 10), characterised in comprising: a first part and a second part (see FIG 2, labels 16 and 18), the parts being moveable towards each other when a compression is performed (col.3, lines 50-55), a return means between the parts for moving the parts away from each other again when the compression is relieved (col.3, lines 27-30).

However, Lally does not disclose the following claimed limitations: an electric power source between the parts, an electronic sound generating means between the parts, and coupled to the power source, and a switch between the parts, the switch being operated by the movement of the parts towards each other, and the switch operably coupling the power source to the electronic sound generating means.

Kelly teaches the following claimed limitations, an electric power source between the parts (col.5, lines 39-40), an electronic sound generating means between the parts and coupled to the power source (FIG 3, labels 55 and 32 and col.6, lines 51-55) and a switch between the parts and the switch operably coupling the power source to the electronic sound generating means (FIG 3, label 22 and col.5, lines 48-53).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly by incorporating an audio signal driver and an audio indicator in order to emit or generate a sound tone that informs a rescuer for how long he/she should apply a compression force to the patient's chest, as taught by Kelly (see col.6, lines 51-55).

However, Lally in view of Kelly does not positively teach, the switch being operated by the movement of the parts towards each other.

Myklebust teaches, a force activated switch being operated by the movement of parts towards each other (col.2, lines 35-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by using a force activated switch in the compression unit in order to allow the applied vertical force activates the switch thereby connecting the power source to the audio signal driver and the audio indicator to produce the audible signal.

Regarding claim 9, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Kelly further teaches, the sound generator generates a repeating sound indicating a desired compression rate (col.6, lines 51-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by incorporating an audio signal driver and an audio

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indicator in order to emit or generate a sound tone that informs a rescuer for how long he/she should apply a compression force to the patient's chest, as taught by Kelly (col.6, lines 51-55).

Regarding claim 10, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Kelly further teaches, the sound generating means generates a sound when the parts are moved towards each other with a force exceeding a pre-defined value (col.10, lines 28-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by setting a desired pressure level in the CPU of the device in order give an audible warning signal to the rescuer when the actual pressure being applied is too great, as taught by Kelly (see col.10, lines 31-35).

Regarding claim 11, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Lally further discloses, a mechanical sound generator between said parts for generating a sound when said parts are moved towards each other with a force exceeding a pre-defined value (col.3, lines 50-60).

Regarding claim 13, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

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Kelly further teaches, the outside surfaces of the parts are made from or at least partly covered with a material with a high coefficient of friction, preferably also being pliable, to avoid slipping and hurting (col.4, lines 14-27).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly and further in view of Myklebust by using textured compression pad to increase the coefficient of friction associated with that surface in order to prevent the compression pad from moving during the administration of C.P.R., as taught by Kelly (col.4, lines 14-27).

Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lally 4,554,910 in view of Kelly 5,496,257, in view of Myklebust 6,306,107 and further in view of Ando 6,303,887.

Regarding claim 2, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

However, Lally in view of Kelly and further in view of Myklebust does not positively teach the switch is integrated in the mechanical sound generator.

Ando teaches a switch that is integrated in a mechanical sound generator (col.1, lines 11-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly, in view of Myklebust and further in view of Ando by implementing a mechanical switch to carry

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out an on-off operation of an electric circuit while generating a click sound in order to notify the user that the electronic equipment is activated.

Regarding claim 4, Lally in view of Kelly and further in view of Myklebust teaches the claimed limitations as discussed above.

Kelly further teaches, the occurrence of the repeating sound corresponding to compression rate (col.5, lines 48-53 and col.6, lines 51-55).

Myklebust further teaches, a force activated switch that activates an electronic circuit when the applied force exceeds a predetermined value (col.2, lines 37-44).

Ando teaches a switch that produces a mechanical sound while connecting an electric circuit (col.1, lines 11-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly, in view of Myklebust and further in view of Ando by implementing a mechanical switch in order to produce a click sound when the applied force exceeds a predetermined value while activating the device so that the user would know the correct pressure is being applied when the audible indicator produces a continuous tone corresponding to the length of the compression phase.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lally 4,554,910 in view of Kelly 5,496,257, in view of Myklebust 6,306,107 and further in view of Mark 4,690,242.

Lally in view of Kelly, and further in view of Myklebust teaches the claimed limitations as discussed above.

However, Lally in view of Kelly, and further in view of Myklebust does not teach, the switch includes a microphone or other piezoelectric means that picks up the sound energy created by the mechanical sound generator and utilizes this energy to couple the power source to the electronic sound generating means.

Mark teaches, a sound activated switch that includes a microphone or other piezoelectric means that picks up the sound energy created by a mechanical sound generator and utilizes this energy to couple a power source to an electronic sound generating means (col.2, lines 4-11 and col.3, lines 13-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly, in view of Myklebust and further in view of Mark by using a sound activated switch that has a microphone with a piezoelectric membrane in order to activate an electronic circuit when sensing a particular sound, thereby alerting a rescuer or a medical care giver.

Claim 12 is rejected under rejected under 35 U.S.C. 103(a) as being unpatentable over Lally 4,554,910 in view of Kelly 5,496,257, in view of Myklebust 6,306,107 and further in view Halperin 2002/0193711.

Lally in view of Kelly, and further in view of Myklebust teaches the claimed limitations as discussed above.

However, Lally in view of Kelly, and further in view of Myklebust does not teach, the power source is a power generator, generating electric power from the movement of the parts.

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Halperin teaches a CPR chest compression monitor having a power generator, generating electric power from the movement of the parts (Para.0041, lines 7-24).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Kelly, in view of Myklebust and further in view of Halperin by incorporating a differential capacitor which comprises independent fixed plates and a movable central plate in order to produce a voltage output when the device is depressed there by sending a signal indicating the amount force or compression applied by the rescuer.

Claims 14-17 are rejected under rejected under 35 U.S.C. 103(a) as being unpatentable over Lally 4,554,910 in view of Halperin 2002/0193711.

Regarding claim 14, Lally discloses the following claimed limitations, a device for placement between the hands of a person performing chest compressions and the chest of a patient or a manikin (FIG 1, label 10), characterised in comprising: a first part and a second part (see FIG 2, labels 16 and 18), the parts being moveable towards each other when a compression is performed (col.3, lines 50-55), a return means between the parts for moving the parts away from each other again when the compression is relieved (see col.3, lines 27-30) and a sound generator between the parts for generating a sound when the parts are moved towards each other with a force exceeding a pre-defined value (col.2, lines 13-19 and col.3, lines 50-60).

However, Lally does not disclose, an orientation sensitive means being responsive to the orientation of the first and the second parts relative to each other, setting the device to a first pre-defined value when the second part is situated lower

than the second part, and a second pre-defined value when the second part is situated lower than the first part.

Halperin teaches, an orientation sensitive means being responsive to the orientation of the first and the second parts relative to each other (Para.0038, lines 15-18), setting the device to a first pre-defined value when the first part is situated lower than the second part (Para.0043, lines 11-15), and a second pre-defined value when the second part is situated lower than the first part (Para.0043, lines 15-18).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Halperin by incorporating a displacement detector comprising an accelerometer in order to determine the true displacement of the chest in relation to the recipient's spine without errors caused by tilting the device with respect to the chest, as taught by Halperin (Para.0043).

Lally in view of Halperin teaches the claimed limitations as discussed above.
Halperin further discloses,

Regarding claim 15, the orientation sensitive means is a distance element adapted to swing by influence of gravity between a first position, whereby the travel distance of the first and second parts towards each other until the sound is generated is of a first magnitude, and a second position, whereby the travel distance is of a second magnitude, the second magnitude being lesser than the first magnitude (Para.0041, lines 5-7 and Para.0049).

Regarding claim 16, the element is mounted at the end of a peg and being equipped with a weight attached or integrated to the side of the element (FIG 3 and FIG 4), the weight swinging the distance element under the influence of gravity between the first and the second position (Para.0038, lines 1-4 and Para.0041, lines 5-7),

Regarding claim 17, the orientation sensitive means is an electronic orientation sensitive component, like an orientation sensitive accelerometer or level sensitive switch, e.g. a mercury switch (Para.0038, lines 1-4 and Para.0040).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the invention of Lally in view of Halperin by using a complete acceleration measurement unit which implements a force-balanced control loop in order to accurately measure both positive and negative accelerations to the maximum level, as taught by Halperin.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruk A. Gebremichael whose telephone number is (571)270-3079. The examiner can normally be reached on Monday to Friday (7:30AM-5:00PM) ALT. Friday OFF.

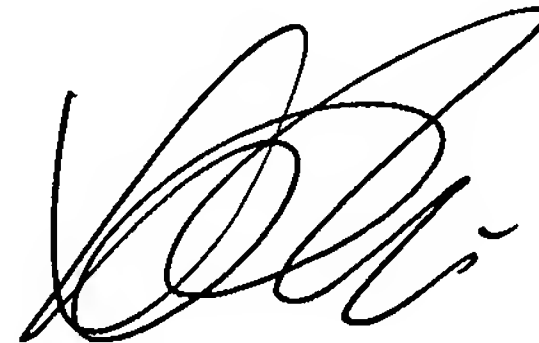
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



B.G.
01/07/2008.



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SUPERVISORY PATENT EXAMINER